

1 Standards & Conditions

Design Standards

The designs and the productions are in conformity with:

- Conformance Europeenne (CE)
- China Compulsory Certification (CCC)
- ISO8528-5:2005
- GB/T2820.5-2009

Environmental Operating Conditions

- Installation place: Indoors (well ventilated).
- Ambient temperature: -25°C to 50°C. The coolant heater is needed when the temperature is below 5°C
- Humidity: Less than 80%.
- Altitude: Below one thousand (1000) meters above sea level.

Factory Inspection

- Inspection items.
- Protection devices working test.
- Starting ability in normal temperature.
- 50% rated power load moment capability.
- Voltage deviation and speed variation: 0%, 25%, 50%, 75%, 100%, 110% Load.

Painting Process

- Painting process specifications and colors are based on the manufacturer's standard.
- The customer could also choose the color which the manufacturer offers.

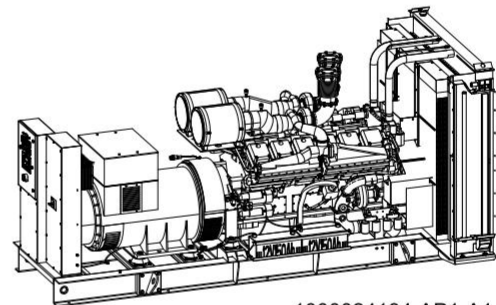
2 General Features

- Cummins engine KTA38-G5
- Close coupled to a Stamford alternator LVI634E
- Microprocessor control module PLC-7420
- DMA main circuit breaker: 1600A
- Rotate speed governor: Electrical governor
- Excitation System: PMG
- A.V.R.Model: MX341
- Key switch
- Emergency stop switch
- ATS (automatic transfer switch) receptacle

- 2x12V/150AH sealed for life maintenance free battery
- Lockable battery isolator switch
- 50°C radiator
- Oil pump on the engine
- Steel base frame with lifting lug
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Operation Manual / Specifications

3 Equipment Specification

General technical data

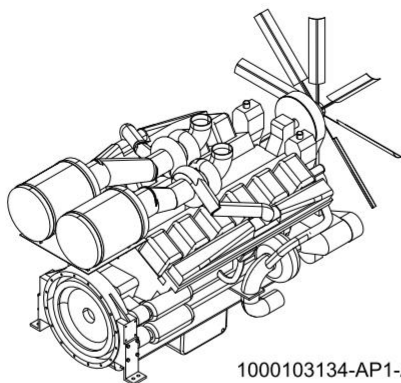


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Model.....HCL1000
 Structure type A
 Tank capacity..... N/A
 Dry weight..... 7622kg
 Sound pressure level @7m N/A
 Sound power level acc. 2000/14/EC N/A
 Dimensions L×W×H..... 4728x2060x2208mm
 Standby Power 1100kVA/880kW
 Prime Power 1000kVA/800kW

Voltage	380V	400V	415V	440V	
Ampere	1519A	1443A	1391A	1312A	
Genset Fuel Consumption					
Frequency/Load	25%	50%	75%	100%	110%
50Hz (L/h)	65	113	161	209	228

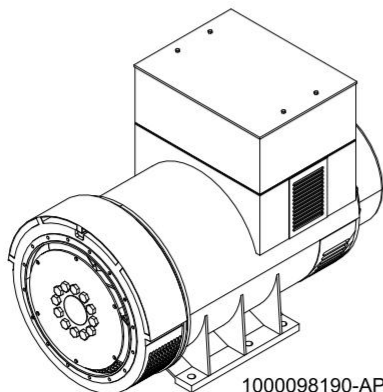
Diesel engine



1000103134-AP1-A1

Engine Manufacturer/Brand.....	Cummins
Engine Model.....	KTA38-G5
Dimensions L×W×H.....	N/A
Dry Weigh (approx.)	3723kg
Number of Cylinders.....	12
Bore.....	159mm
Stroke.....	159mm
Displacement.....	37.8L
Compression Ratio.....	13.9
Type of injection.....	Direct
Intake System.....	Turbocharged
Intake Resistance.....	6.23kPa
Cooling System	Water cooled
Fan	Pusher
Battery Voltage	24V
Type of Fuel.....	No.2 Diesel
Type of Oil	CF4/SG15W-40
Oil Capacity	135L
Type of Coolant	Glycol mixture
Coolant Capacity	199L
Back Pressure	≤10kPa
Standby Power	970kW
Prime Power	880kW
Fuel Consumption(100%load).....	209L/h

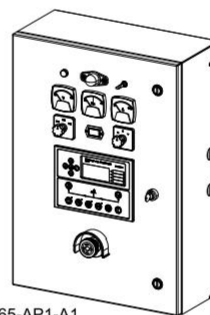
Alternator



1000098190-AP1-A1

Alternator Manufacturer/Brand	Stamford
Alternator Model	LVI634E
Exciter.....	Brushless
Cooling Fan	Cast alloy aluminum
Windings.....	100% copper
Insulation Class	H
Winding Pitch.....	2/3
Terminals	12
Drip Proof	IP23
Altitude.....	≤1000m
Overspeed	2250rpm
Air Flow.....	2.18m³/s(50Hz), 2.63m³/s(60Hz)
Voltage Regulation	±0.5%
Total Harmonic TGH / THCat no load < 1.5 % - on load < 5%	
Telephone Interference.....	THF<2%;TIF<50

PLC-7420 Control System



1000246265-AP1-A1

PLC-7420 is an advanced control module based on micro-processor, containing all necessary functions for protection of the genset and the breaker control. It can monitor the mains supply, and automatically start the engine when the mains is abnormal. Accurately measure various operational parameters and display all values and alarms information on the LCD. In addition, the control module can automatically shut down the engine and indicate the engine failure.

- Microprocessor control, with high stability and credibility
- Monitoring and measuring operational parameters of the mains supply and genset
- Indicating operation status, fault conditions, all parameters and alarms
- Multiple protections; multiple parameters display, like pressure, temp. etc.
- Manual, automatic and remote work mode selectable
- Real time clock for time and date display, overall runtime display, 250 log entries
- Overall power output display
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed etc.
- Communication with PC via RS485 OR RS232 interface, using MODBUS protocol

4. Open Type Overall Dimensions

